

L.A. COUNTY + IDEO

Deliverable 3.1.2
In-process BMD User Experience
“Works-Like” Prototypes

VOTING PRINCIPLES

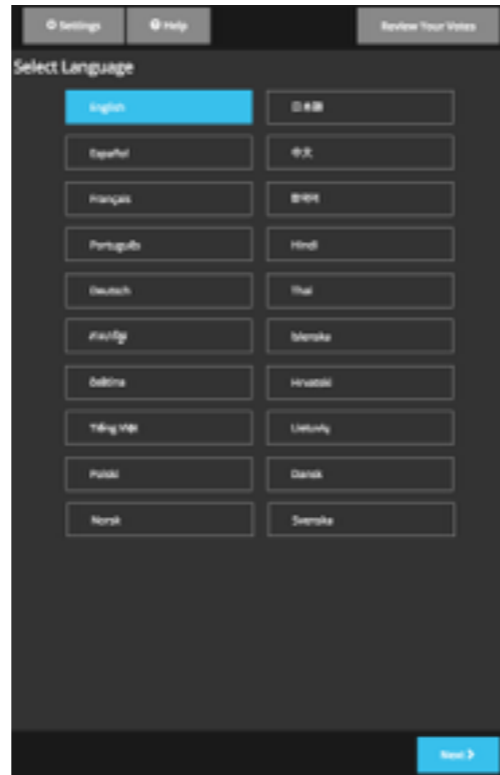
Goals for User Interface Prototypes 3.1.2

- 4 *The voting system must instill **public trust** by having the ability to produce a physical and tangible record of a voter's ballot to verify the ballot was marked as intended before it is cast and to ensure audibility of the system.*
 - The BMD UI should experience should allow voters to feel secure once they have cast their ballot.
 - The BMD UI should assure voters that the contests are accurate in their native language as well as English.
- 7 *The voting system must guarantee a **private and independent** voting experience for all voters, including voters with a full range of types of disabilities and voters with limited English proficiency.*
 - The BMD UI should strike the right balance of large enough text for legibility, while still maintaining a sense of privacy.
- 8 *The voting system must be **easy** for all voters to use, in particular, for voters with a full range of types of disabilities and voters with limited English proficiency.*
 - The BMD UI should adjust to provide a voting experience that accommodates the needs of various disabilities.
 - The BMD UI should be intuitive for voters to use.

GOALS

User Interface Prototypes 3.1.2 User Studies

1. How do **central and integrated ballot boxes** compare in terms of usability (efficiency, ease of use, ease of learning, user satisfaction), perceived privacy and accessibility?
2. How do we provide a highly usable experience for **speakers of other languages**?
3. What are usable, accessible, and private ways to **manage the paper ballot**?
4. How do voters want to **customize their experience** in terms of making the screen angle and user interface comfortable for them?



Prototype	3.1.1	3.1.2
Display Size	12.3”,15.6”, or 18.4”	15.6”
Session Initiation	Touching the screen	Selecting language or inserting ballot
Directions	Directions from facilitators	Overview directions/step-by-step
Action Buttons	Bottom of page	Bottom of page/above candidates name
Settings	Prompted to adjust settings	Settings button in page/physical buttons
Scrolling	No scrolling arrows	Up and down scrolling arrows

CHANGES FROM PROTOTYPE 3.1.1

BMD PROTOTYPES 3.1.2

User Experience Overview of Features

UX Features	Prototype 1	Prototype 2
Session activation	Ballot first	Language first
Action Button placement	Pill shaped in footer	Rectangular shaped above candidate names
Header Navigation	Buttons	Tabs
Contrast / Text Size	Settings button in interface	Physical buttons
Write-in names	same for both prototypes	
Digital review	same for both prototypes	
Ballot box	alternated between central and integrated	alternated between central and integrated
Voting on candidates / measures	same for both prototypes	
Scrolling	same for both prototypes	
Providing context	overall overview	step by step instructions



Prototype 1



Prototype 2

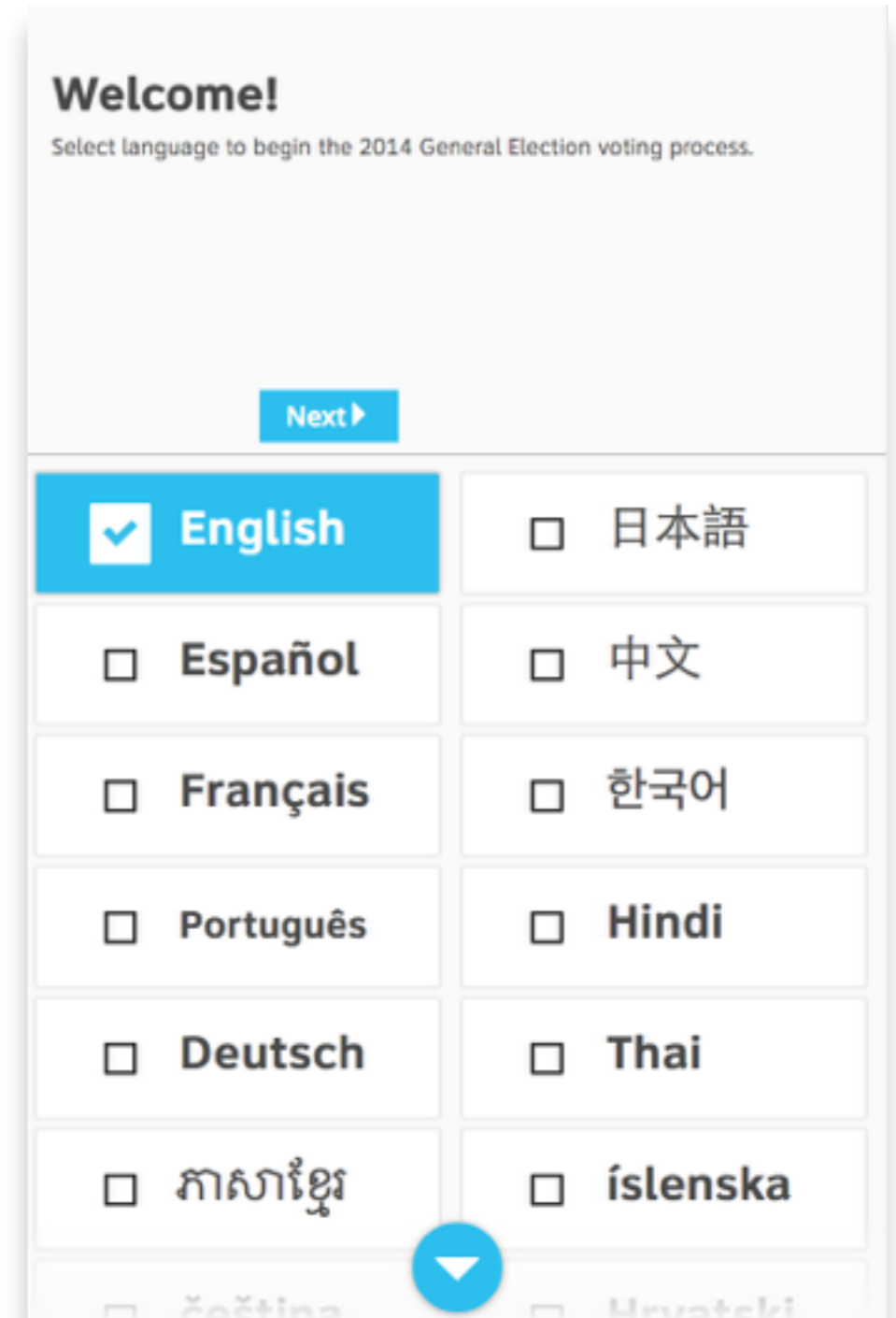
BMD PROTOTYPES 3.1.2

Display Overview

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Prototype 1: Ballot first



Prototype 2: Language first

SESSION ACTIVATION

The first screen the user sees upon approaching the BMD



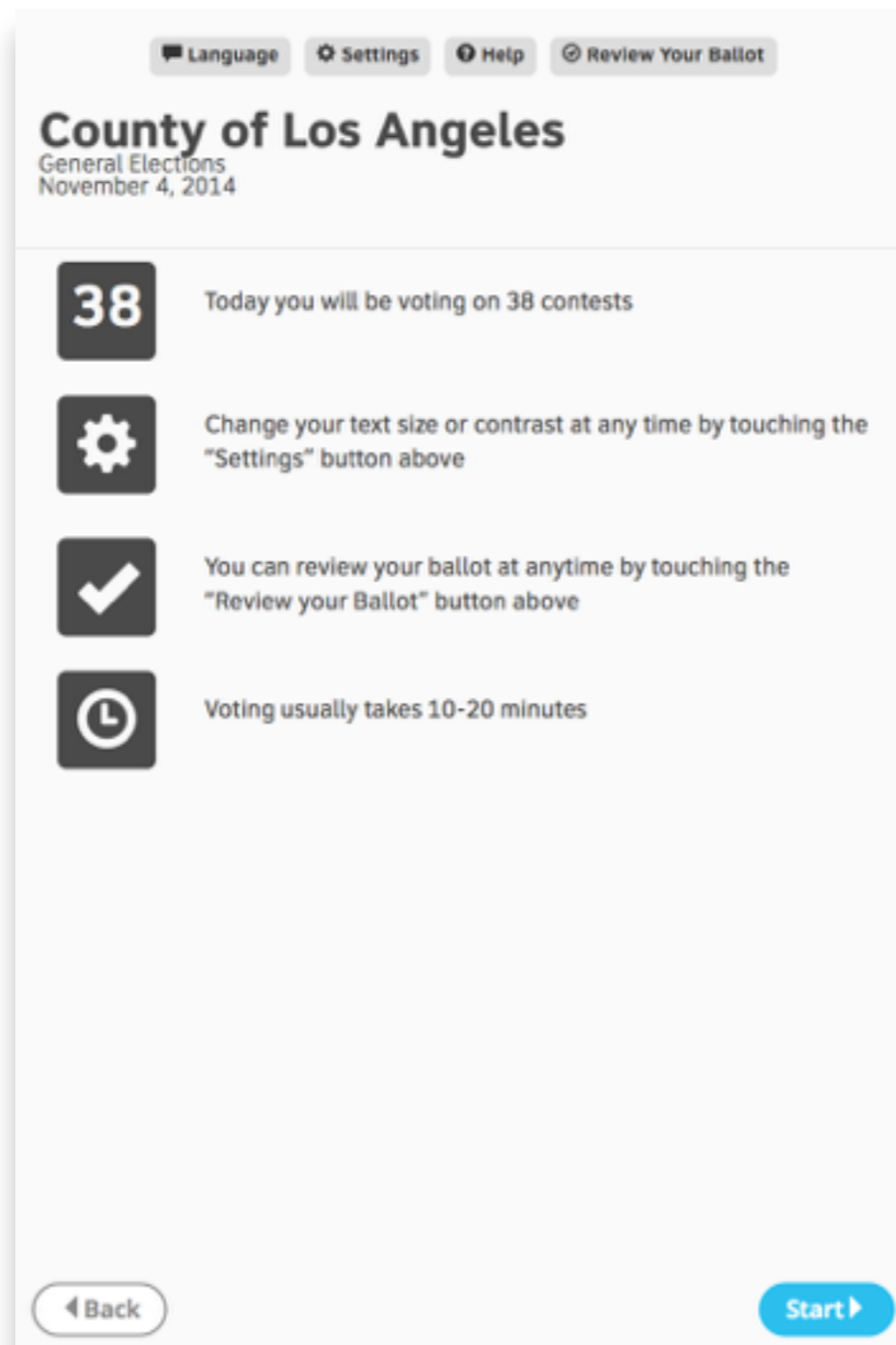
Prototype 1: Ballot received



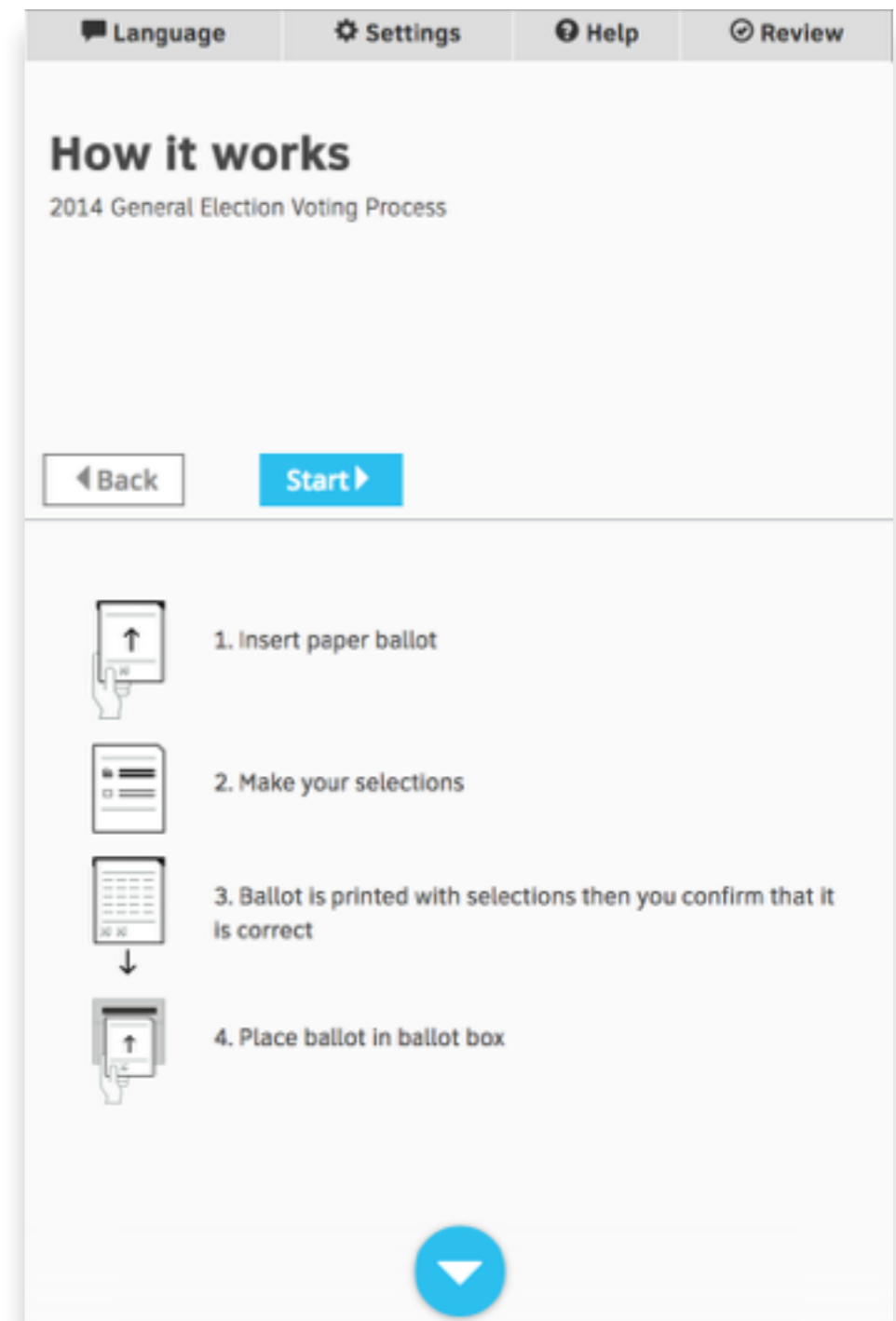
Prototype 2: Ballot received

BALLOT ACTIVATION

Insertion of ballot and confirmation of ballot activation



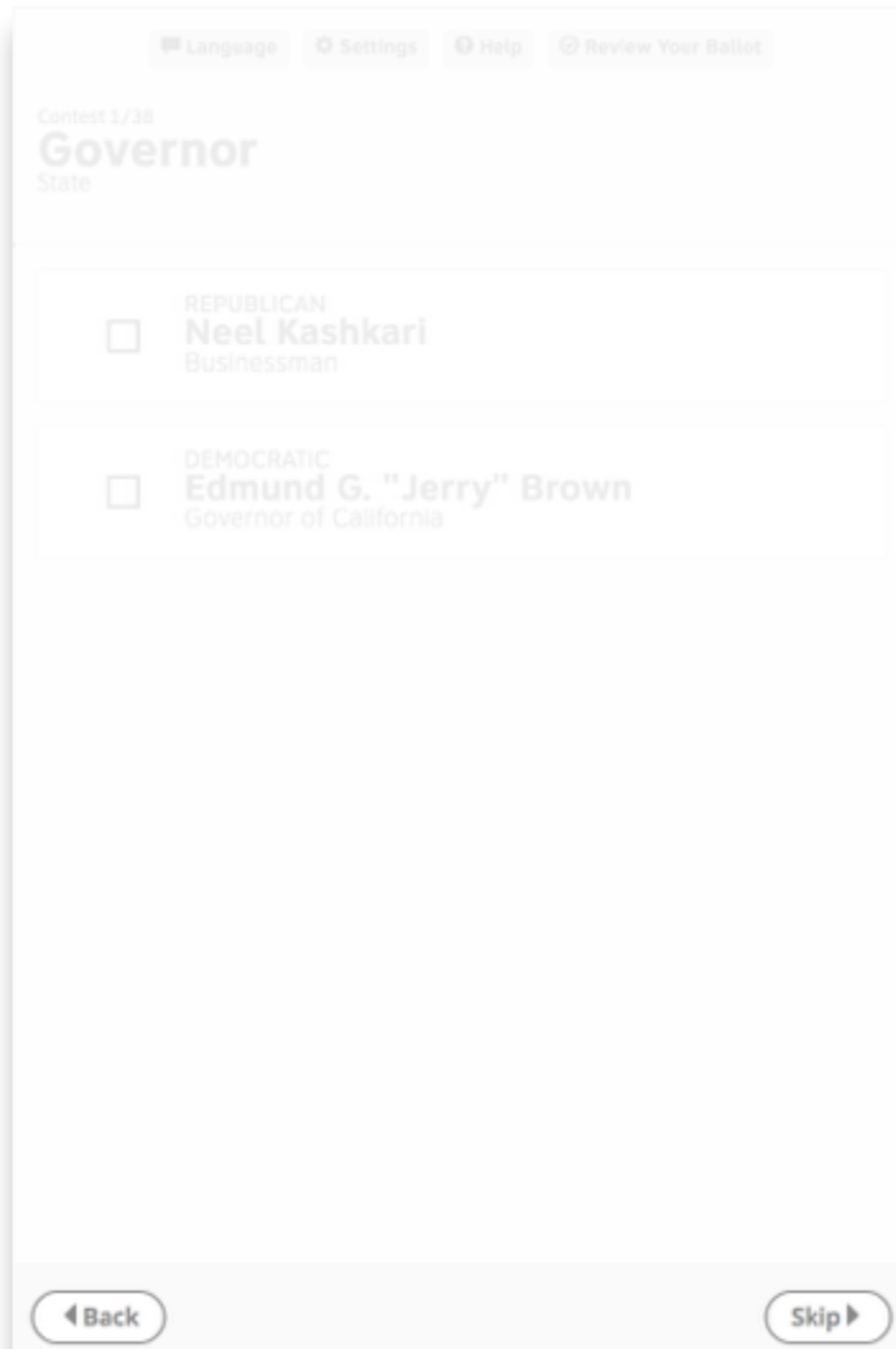
Prototype 1: Overall overview



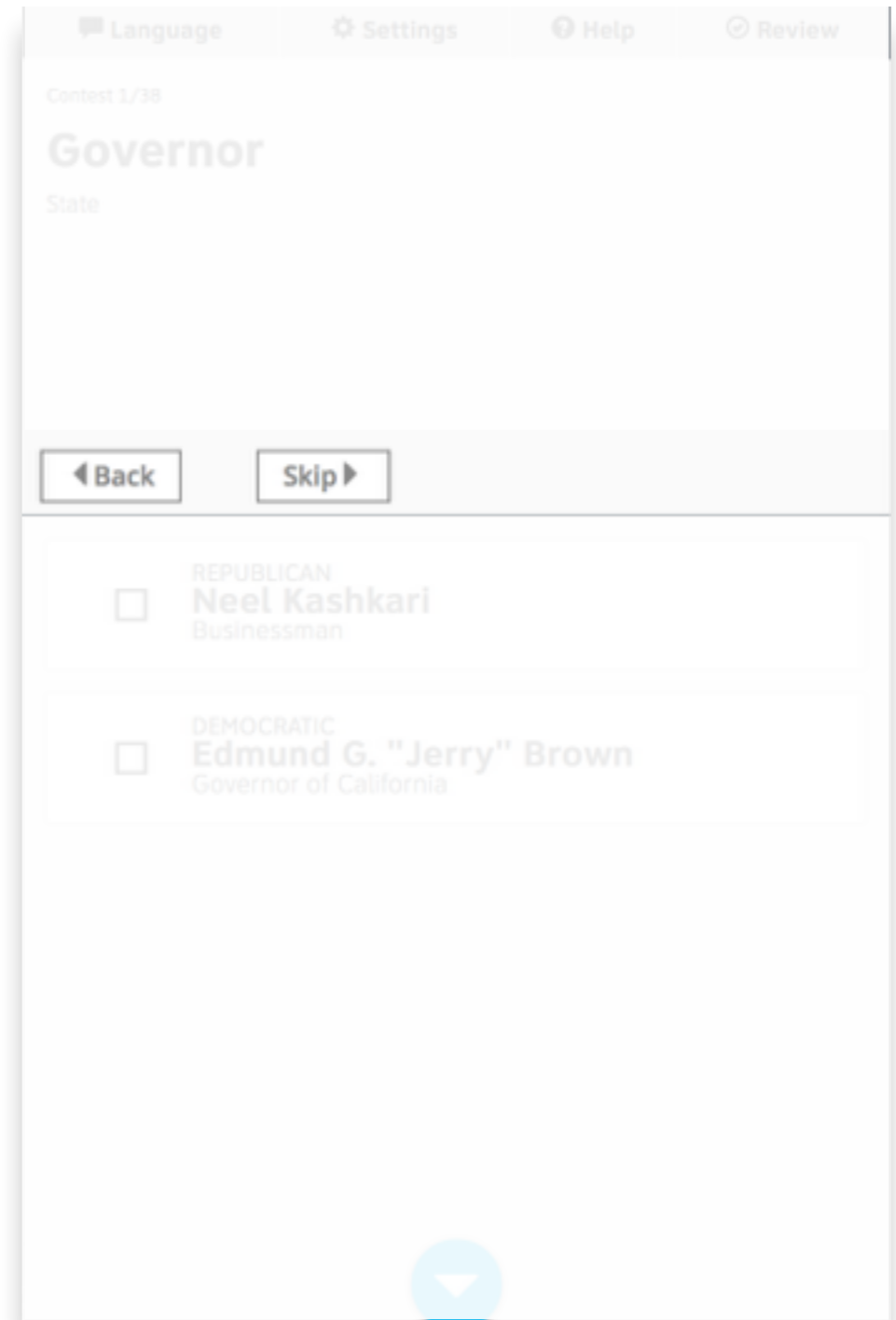
Prototype 2: Step by step instructions

PROVIDING CONTEXT

Exploring what kind of contextual information the user needs



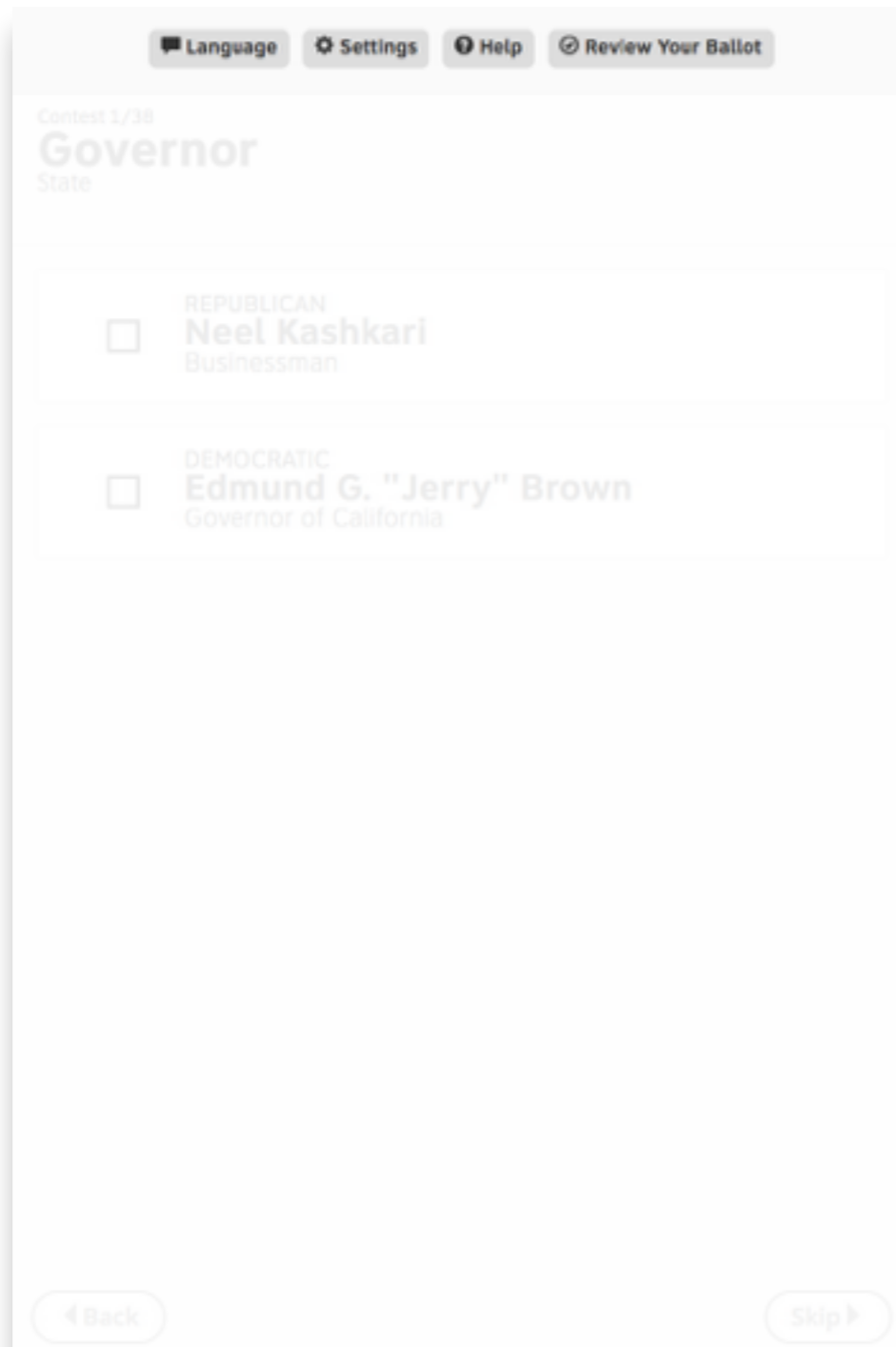
Prototype 1: Pull shaped footer buttons



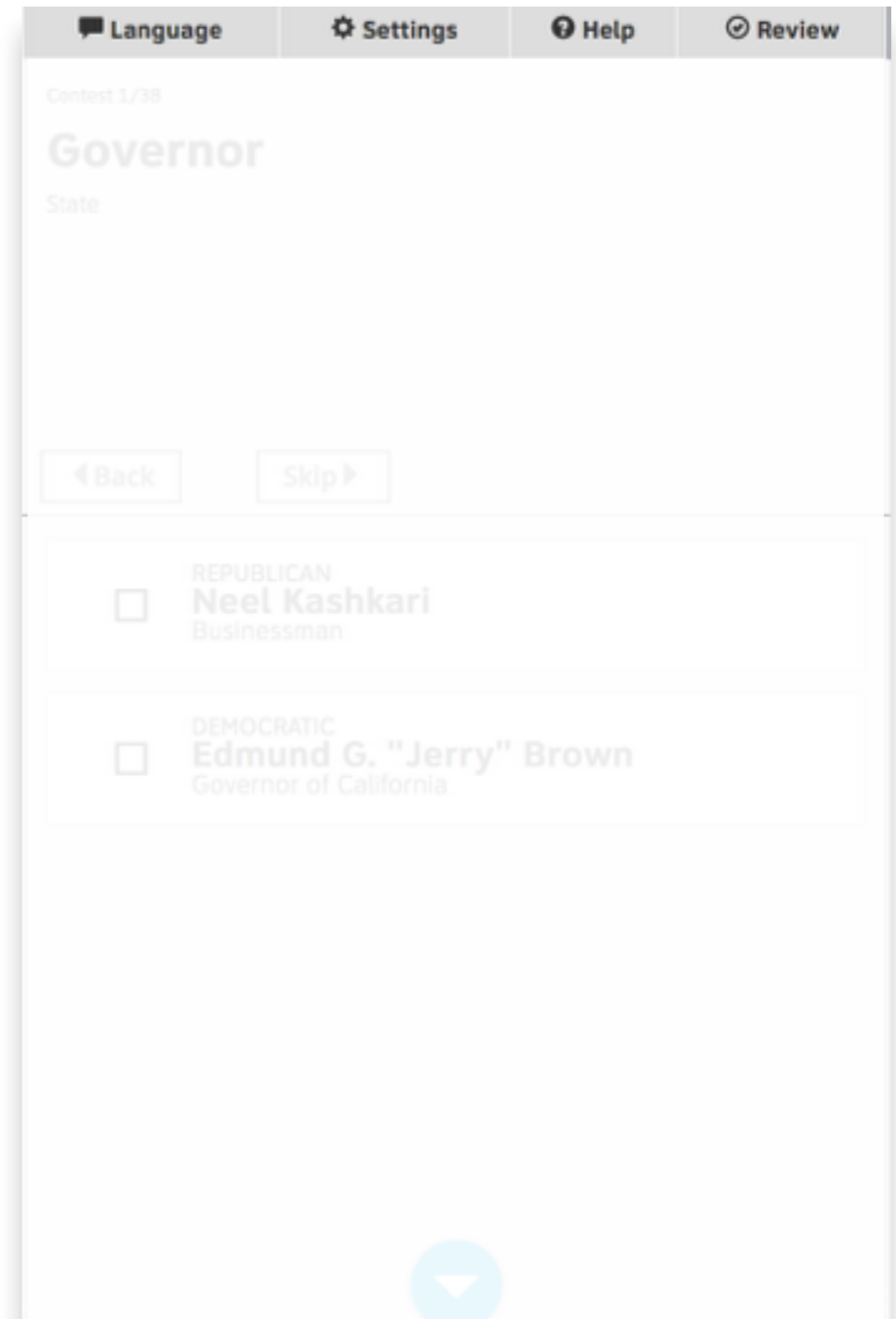
Prototype 2: Rectangular shaped above candidate names

ACTION BUTTONS

Placement of back / next (or other action) buttons



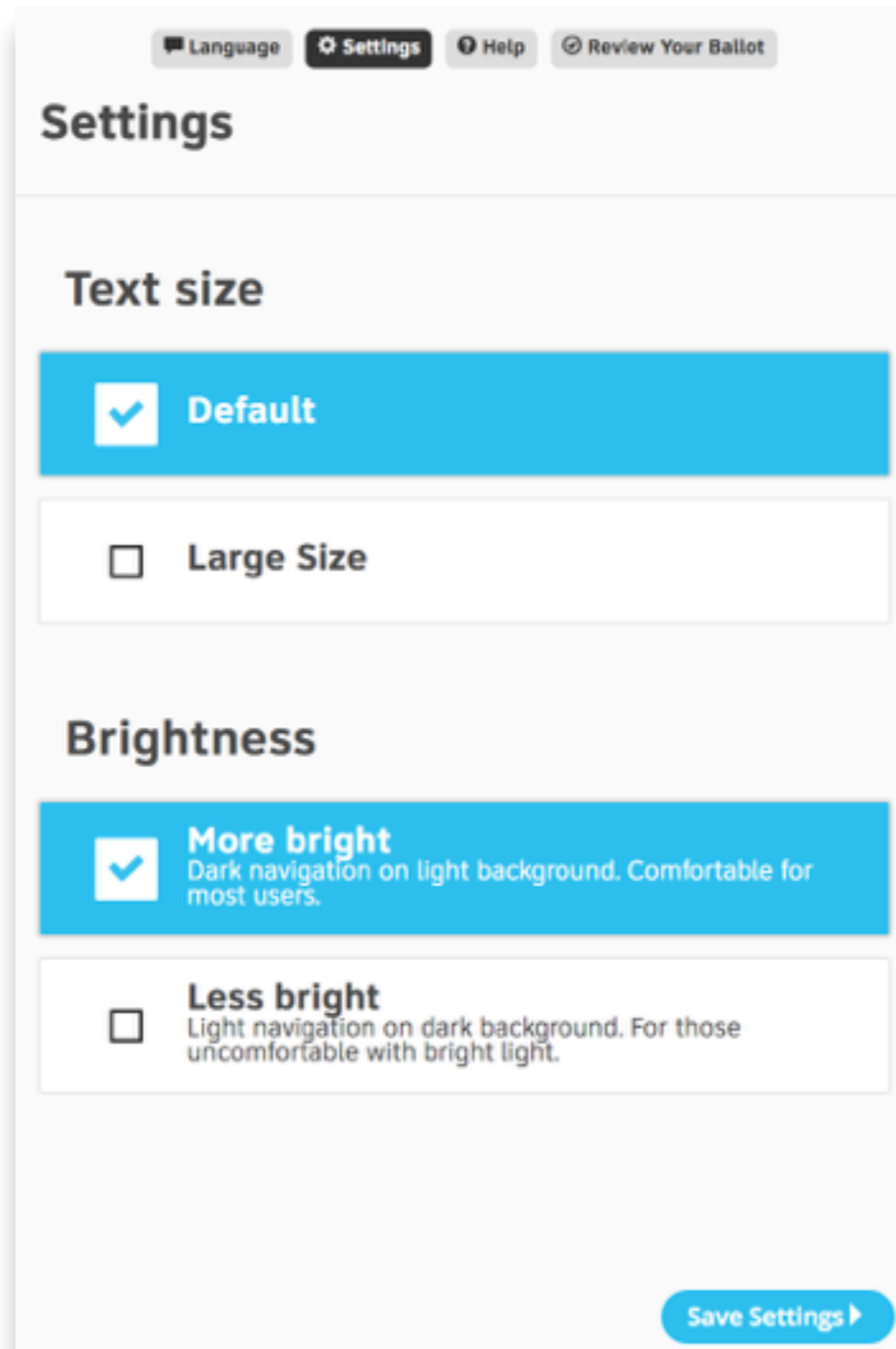
Prototype 1: Pull shaped footer buttons



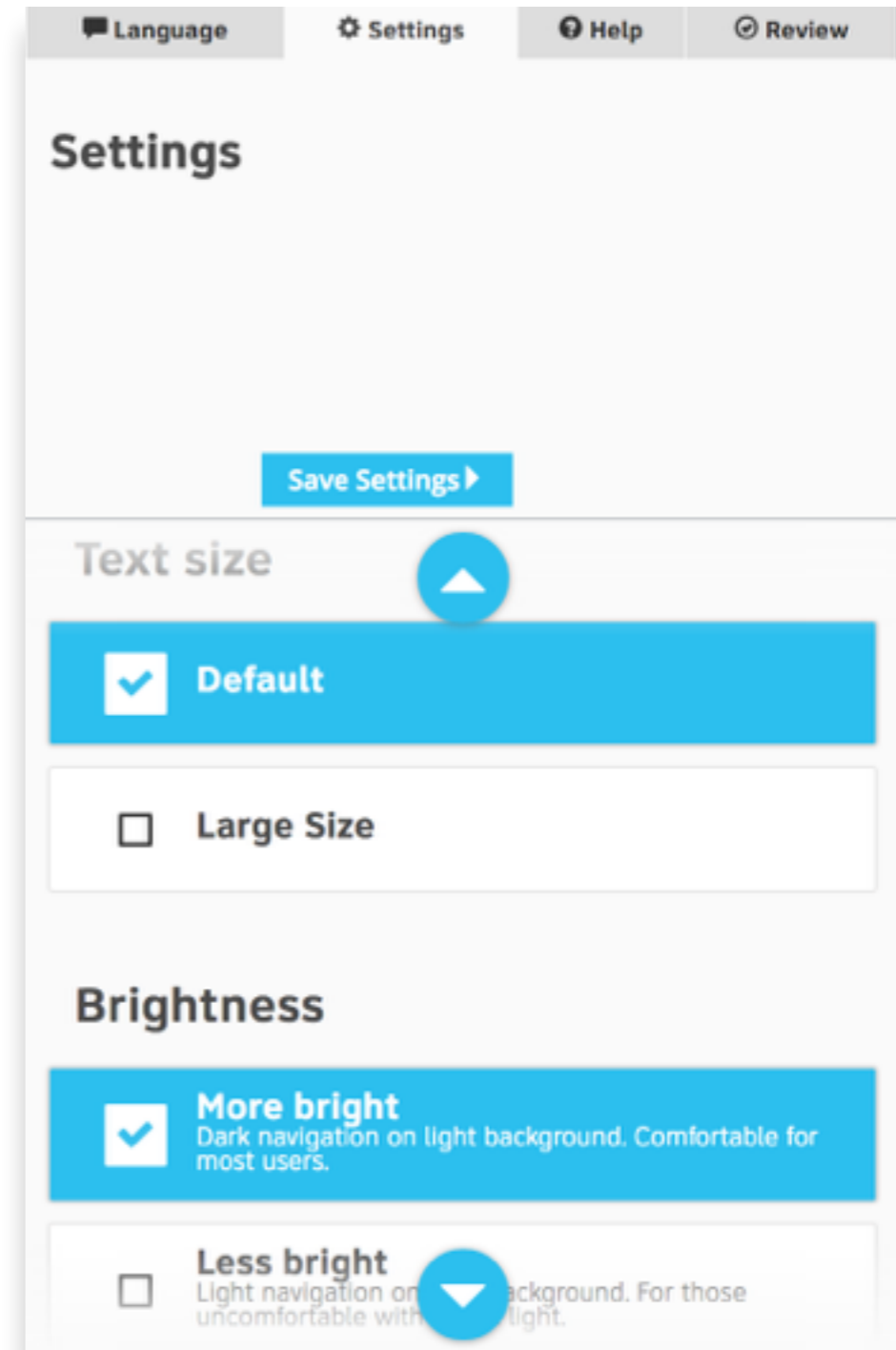
Prototype 2: Rectangular shaped above candidate names

HEADER NAVIGATION

Placement of back / next (or other action) buttons



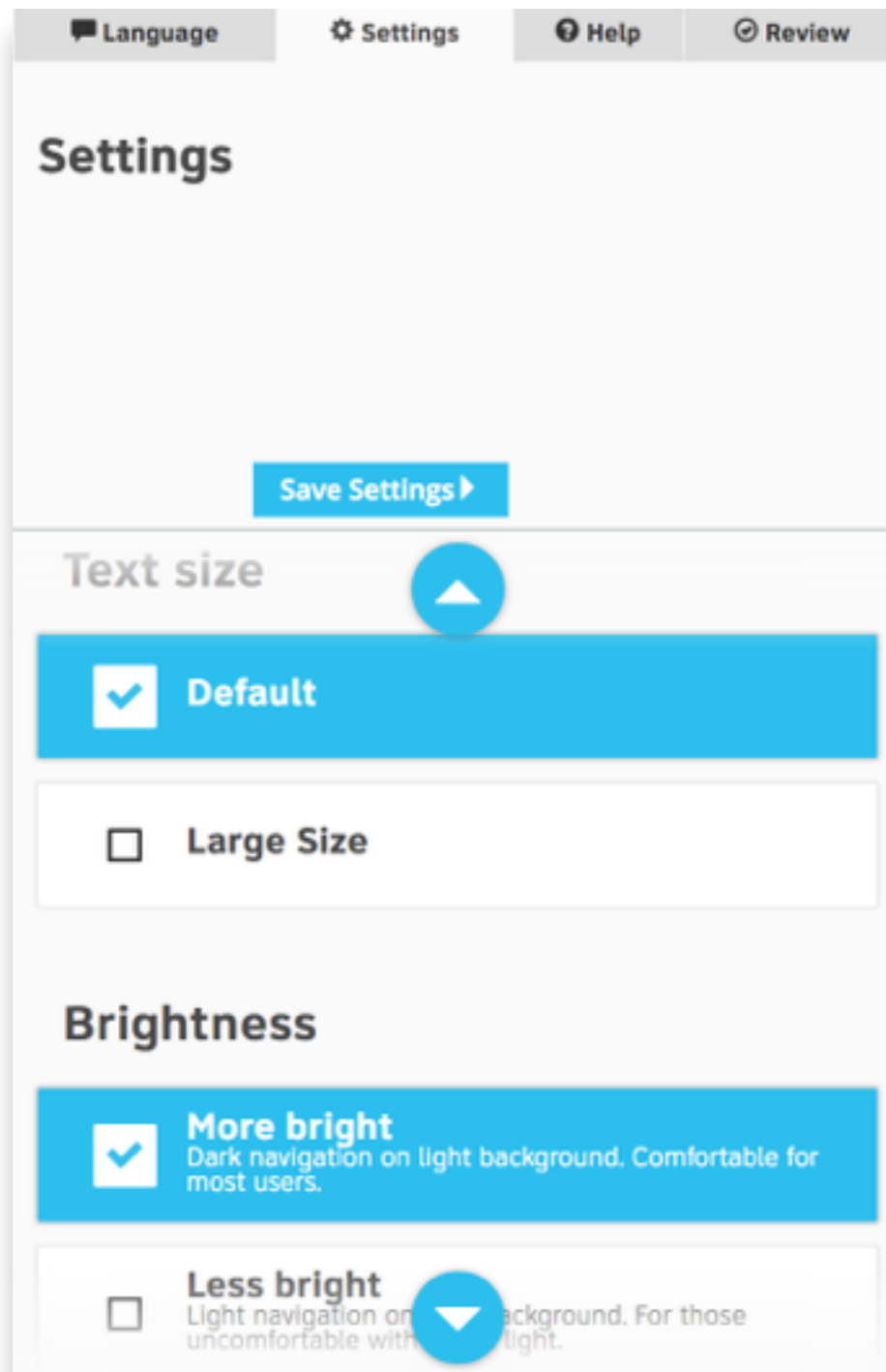
Prototype 1: Were not prompted to change the settings, but could be found in the settings button



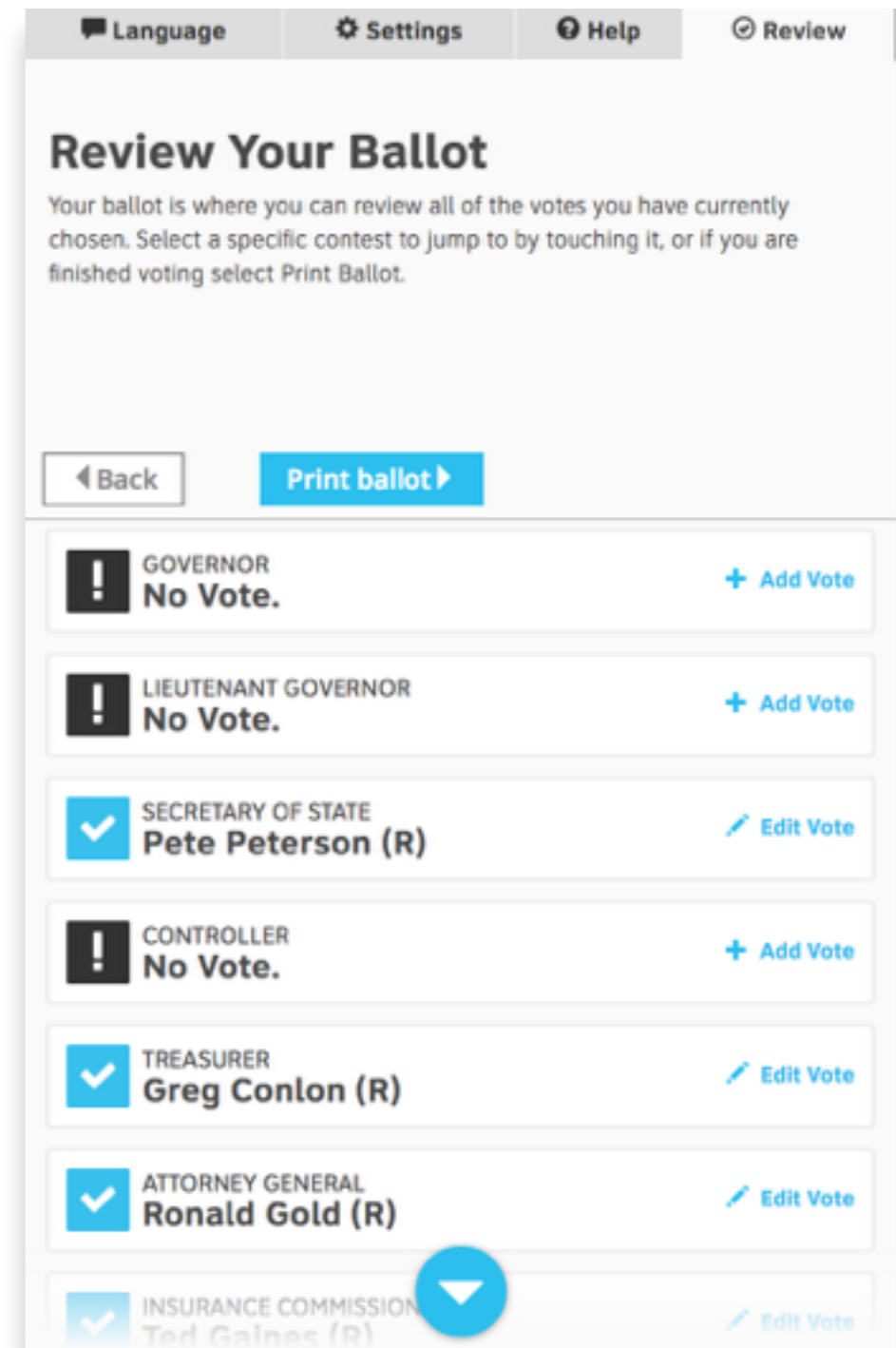
Prototype 2: Had physical buttons on the BMD, but could also access the settings through the interface.

SETTINGS

Changing contrast and text size.



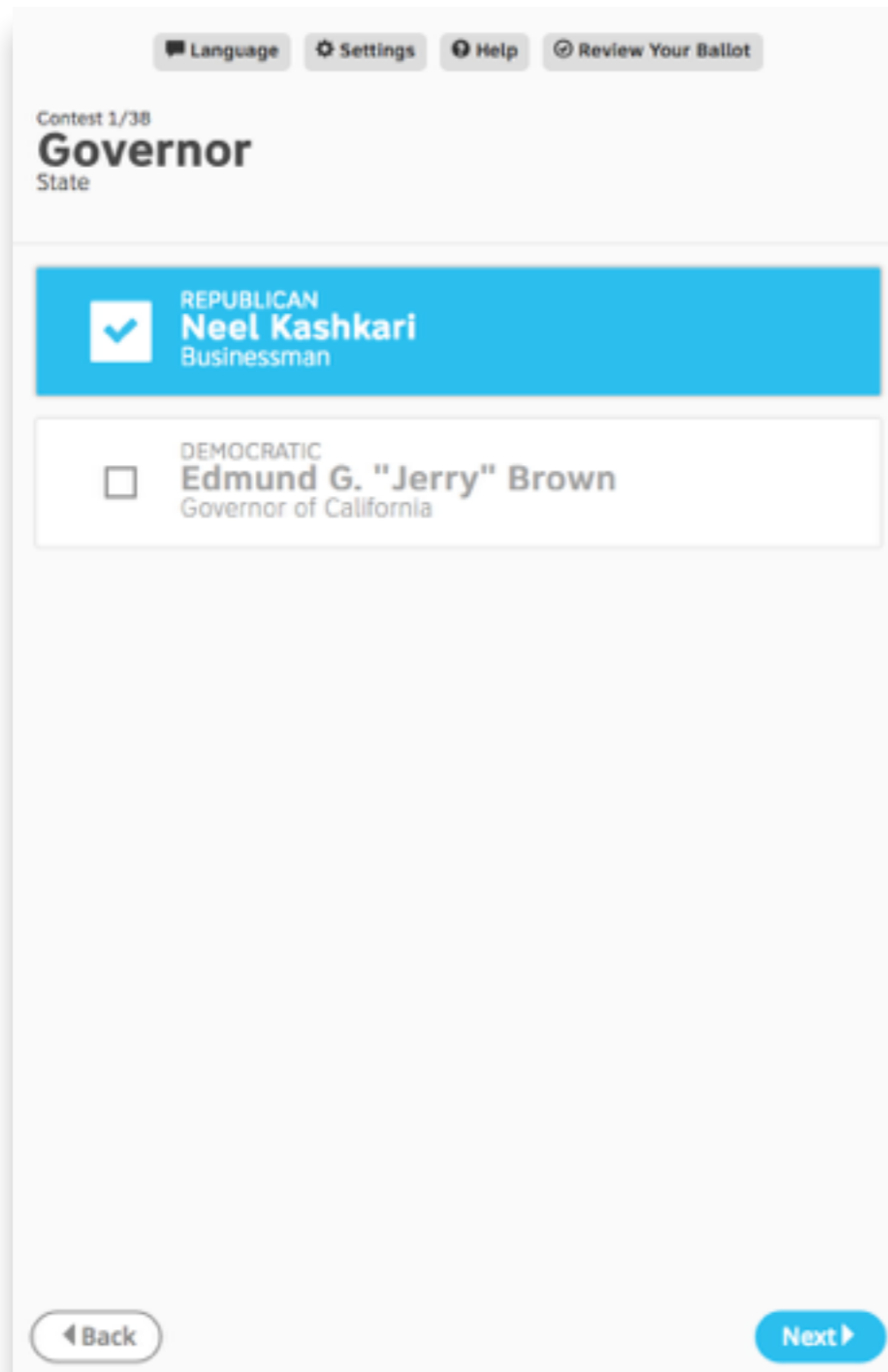
Prototype 1



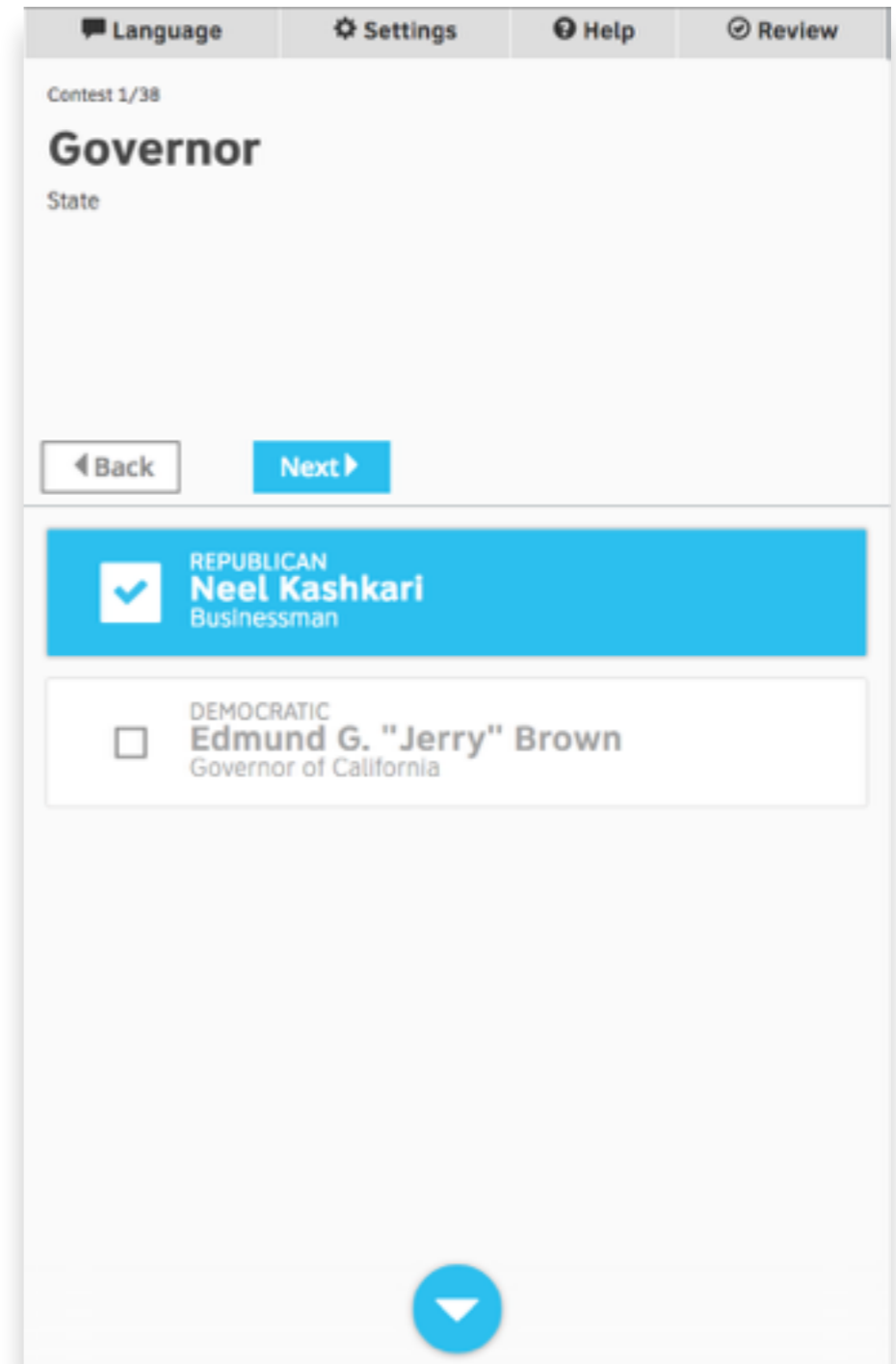
Prototype 2

SCROLLING

Up & Down scrolling was the same on both prototypes



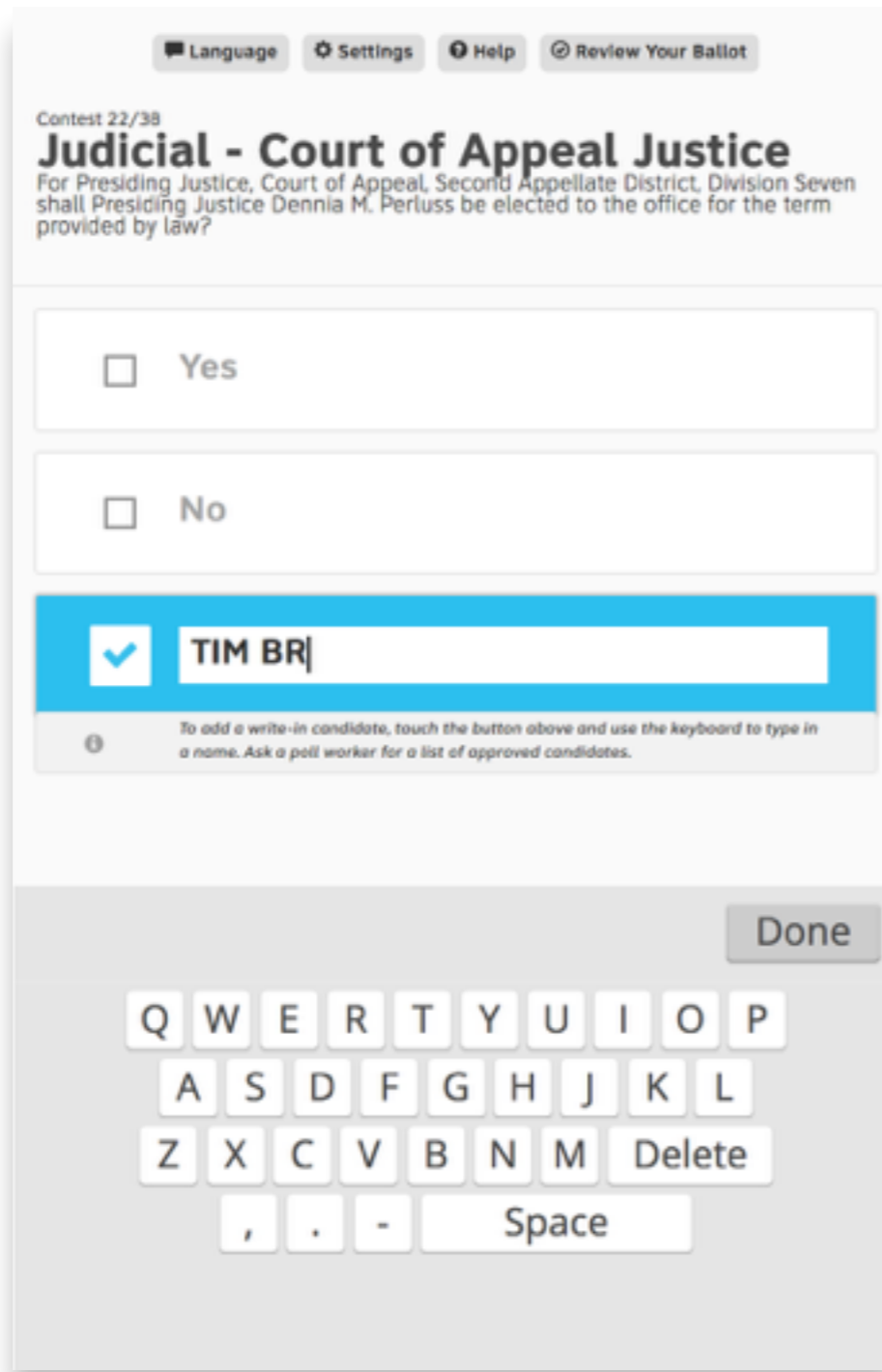
Prototype 1
Prototype 1



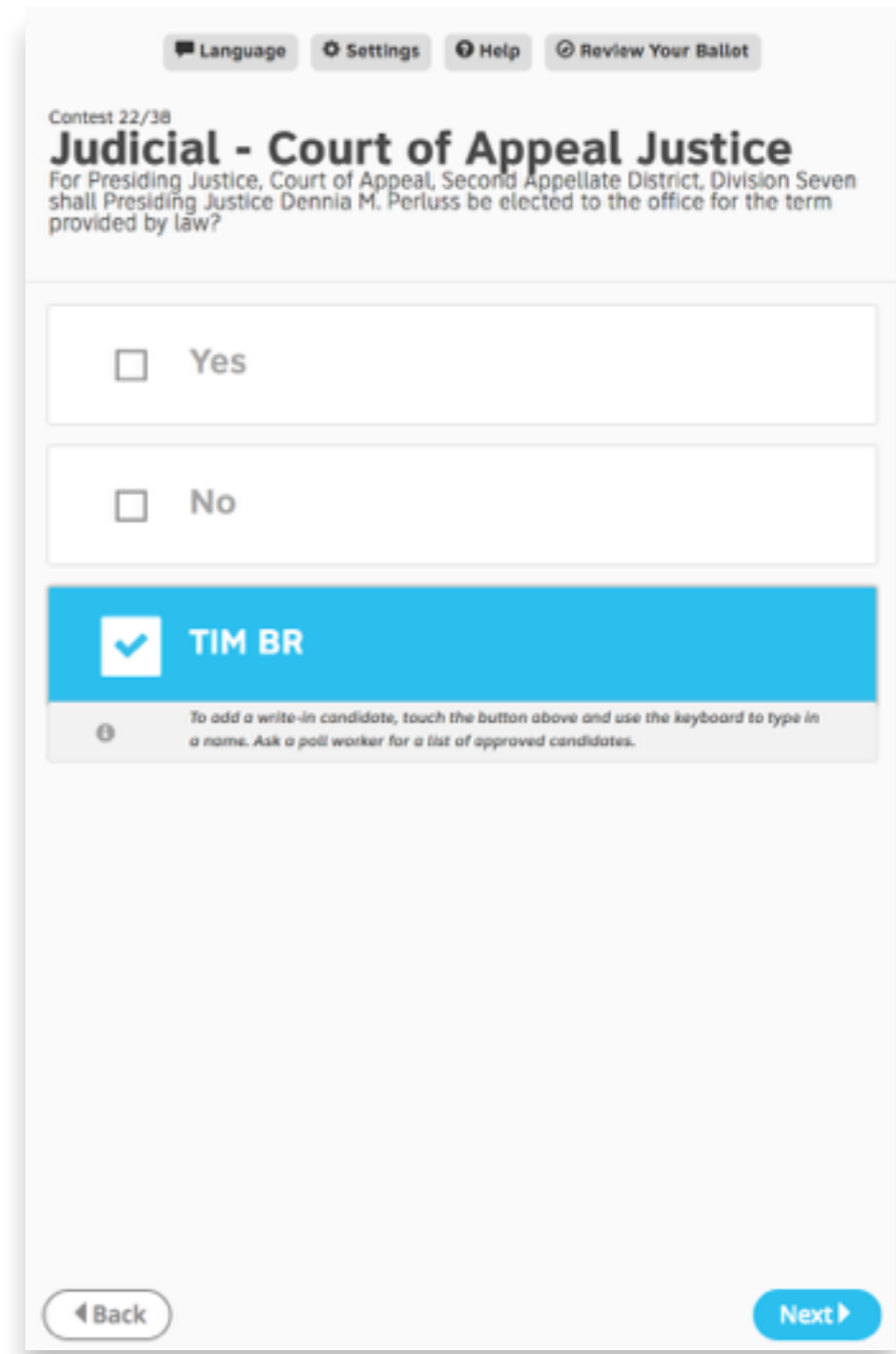
Prototype 2

VOTING ON CONTESTS

Selected state of candidates were the same on both prototypes



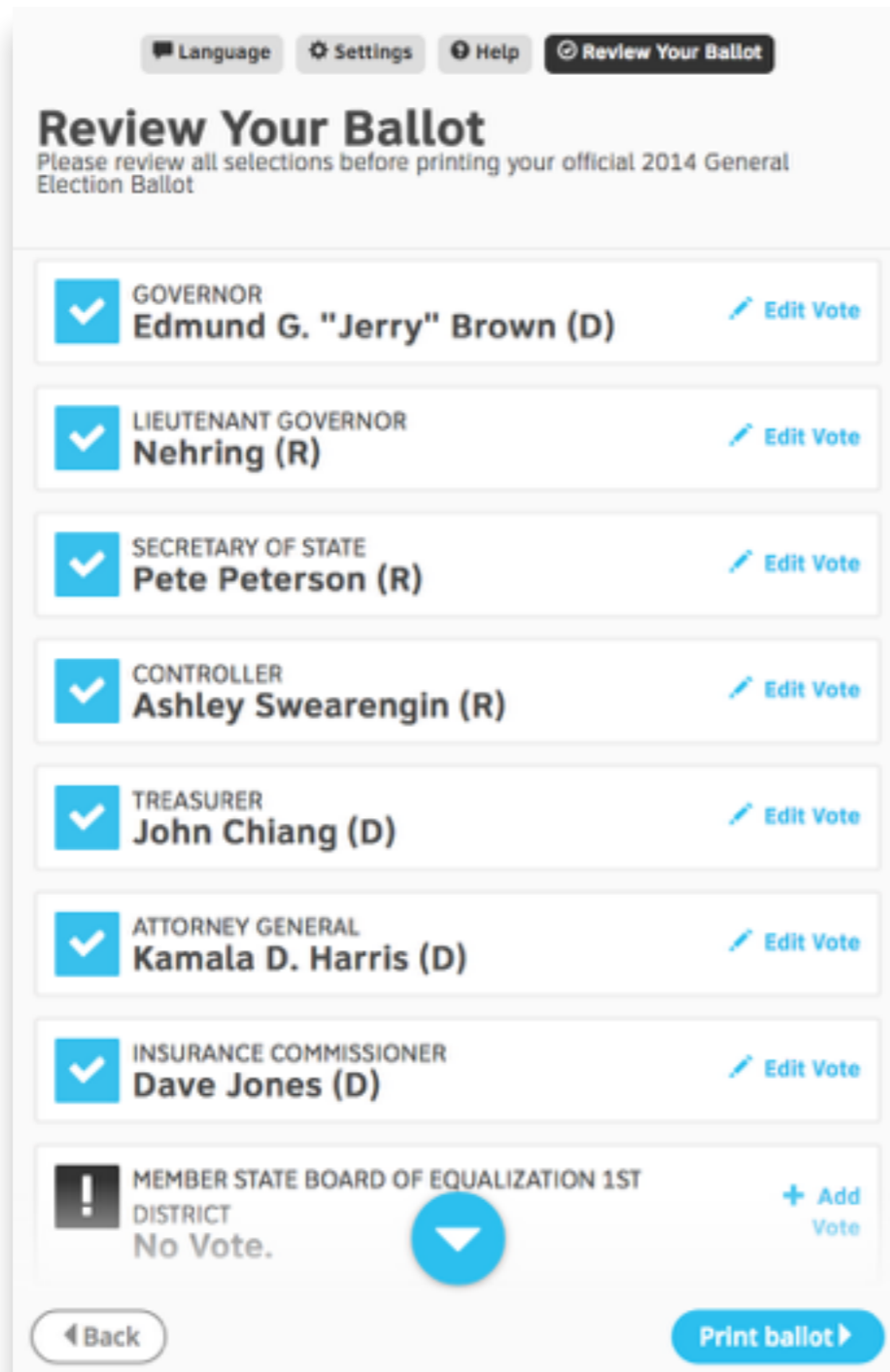
Prototype 1



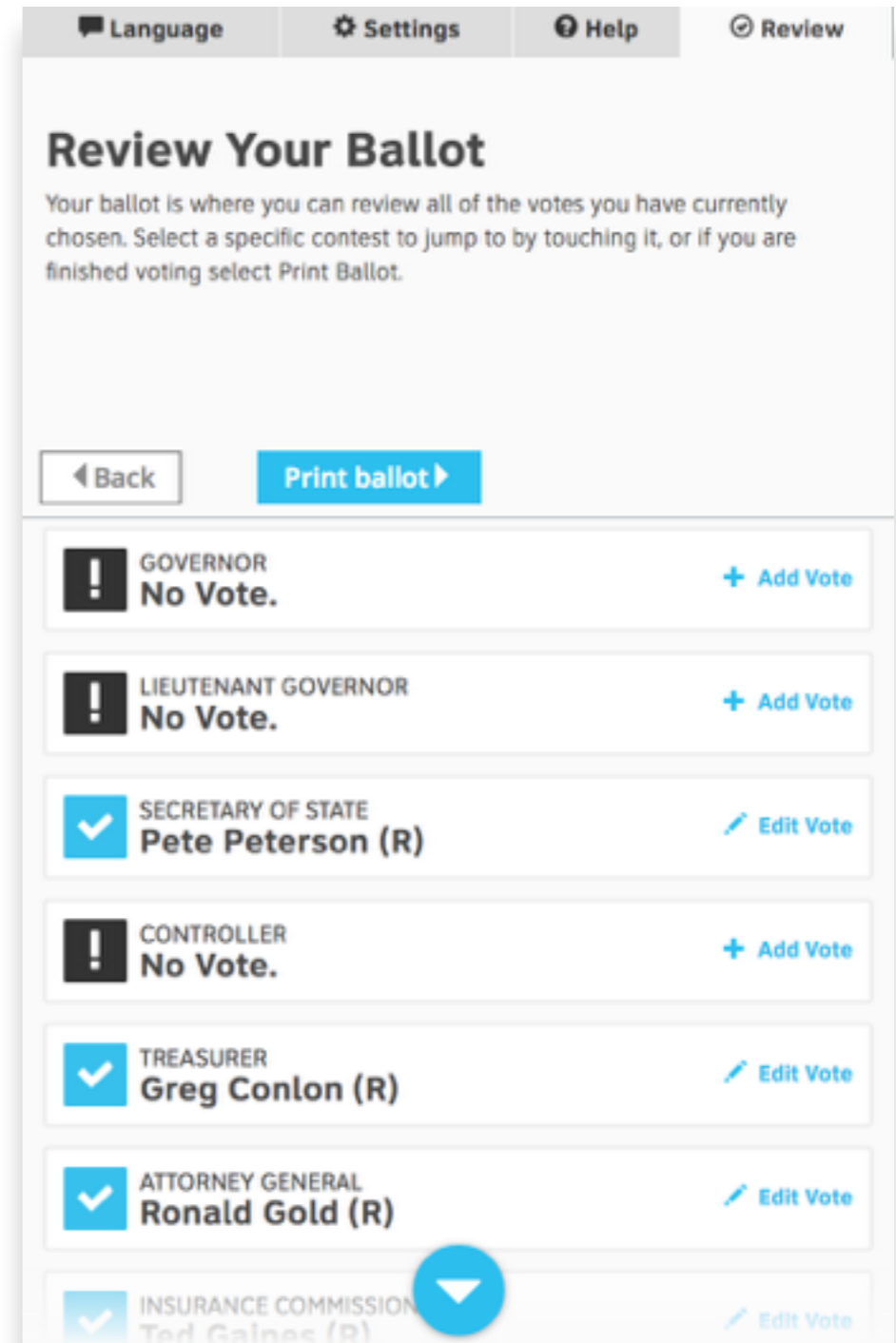
Prototype 2

WRITE-IN CANDIDATES

Write-ins were presented in the same way in both prototypes



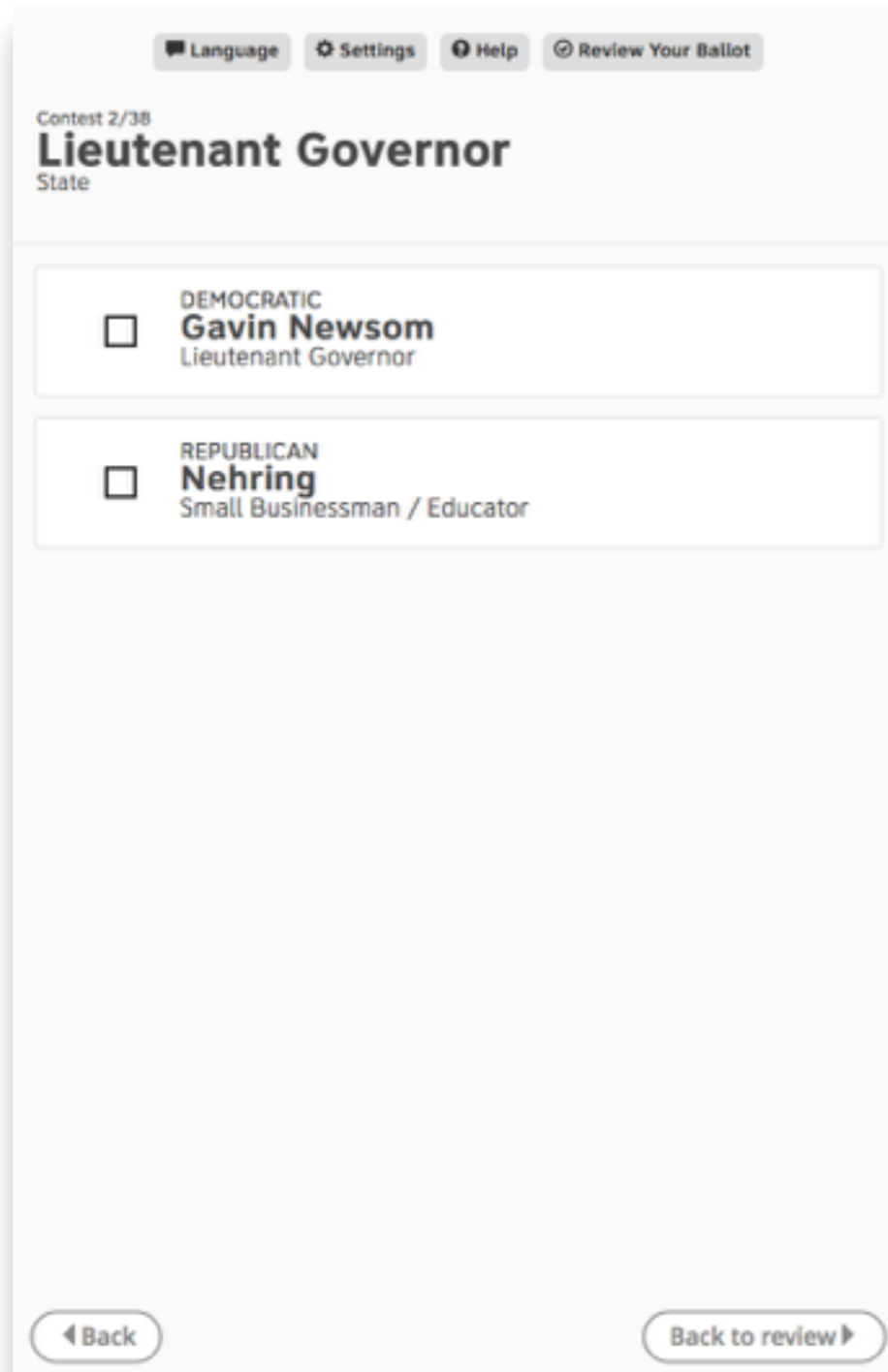
Prototype 1



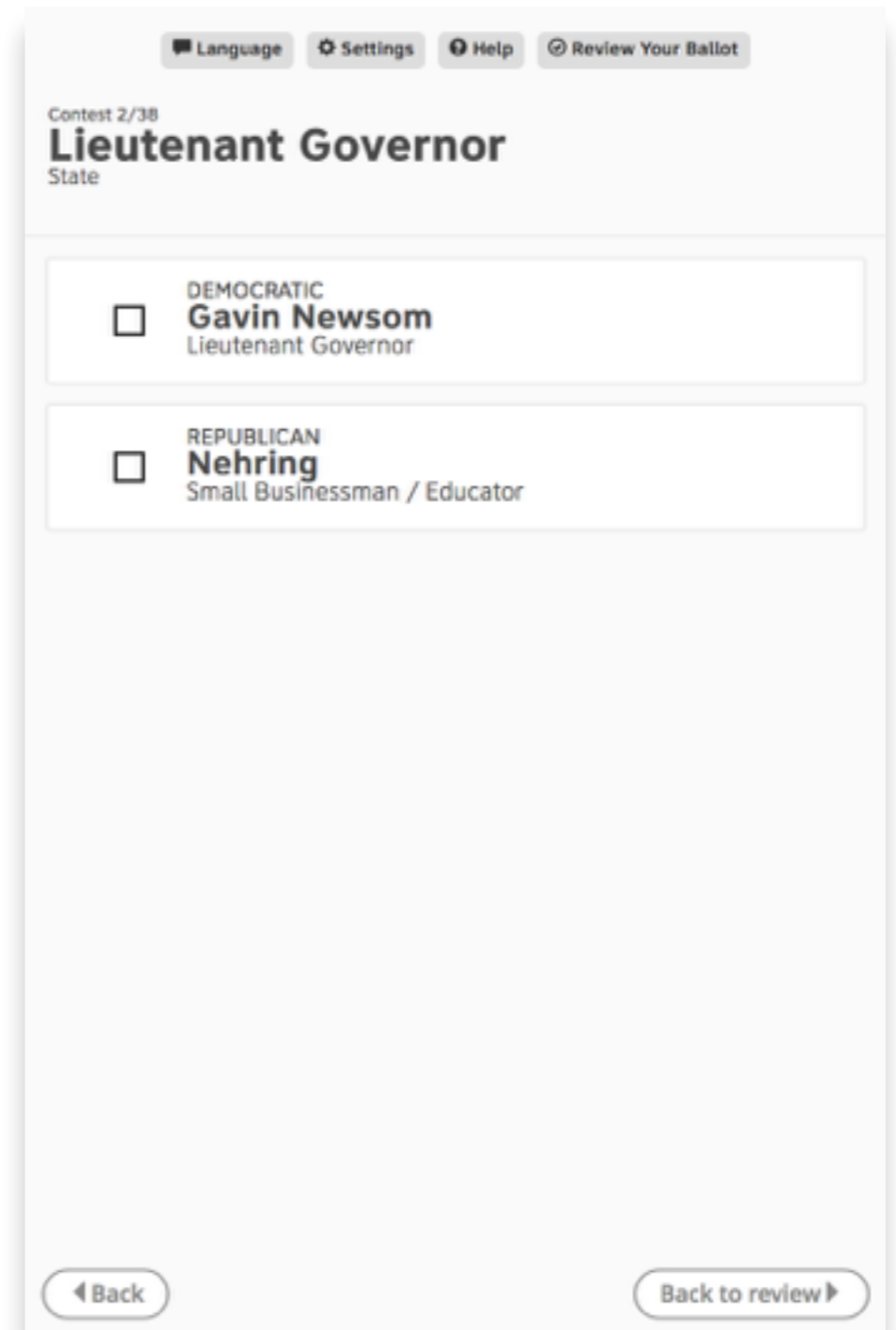
Prototype 2

DIGITAL REVIEW

Digital review



Prototype 1



Prototype 2

CHANGE SELECTION

Digital review

Printing your official paper ballot

This usually takes a few seconds



Review official ballot and cast your votes in the ballot box near the exit

This is your last chance to review your ballot before casting your official vote



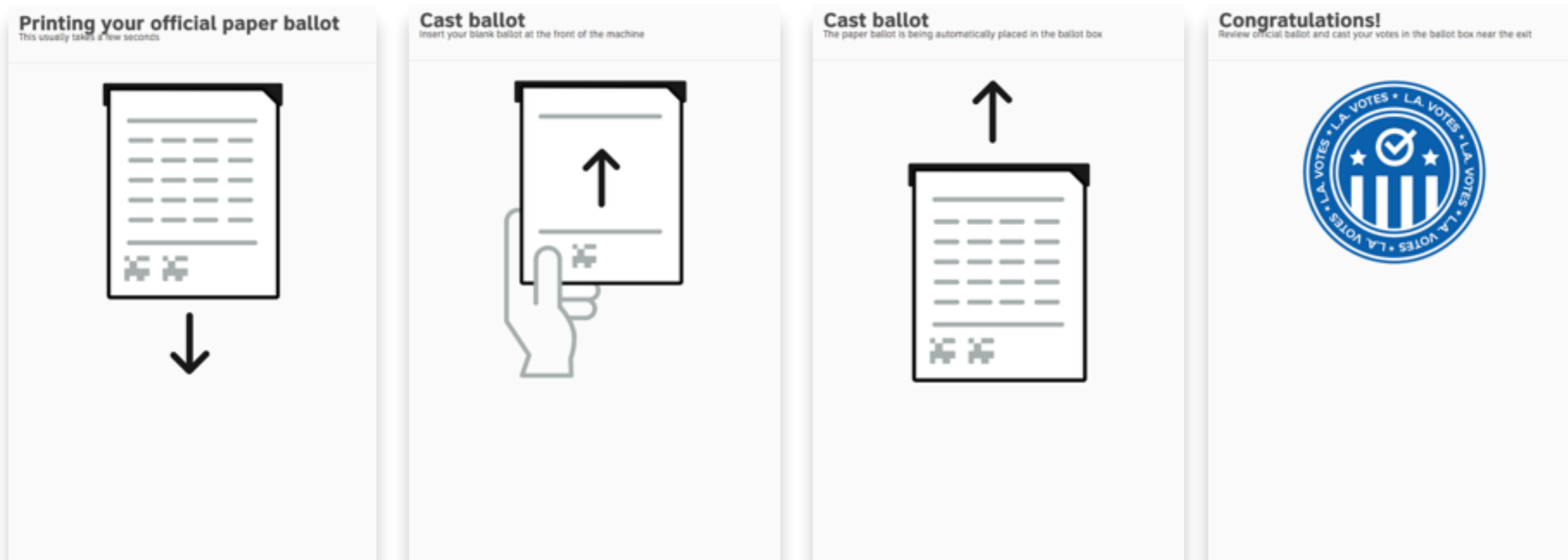
Congratulations!

Review official ballot and cast your votes in the ballot box near the exit



PRINT & VERIFY BALLOT

Central Ballot box steps (alternately used on both)



PRINT & VERIFY BALLOT

Integrated Ballot box steps (alternately used on both)

NEXT STEPS

Testing, Feedback, Conclusions

This randomized control trial of the voting experience provided the IDEO team with qualitative and quantitative data to inform our iterative design process.

Data analysis led to the following insights:

- Although both central and integrated ballot boxes are acceptable options, and both require more design work to make them truly intuitive, the integrated ballot box is more usable, private, and accessible.*
 - Voters who speak other languages preferred to see both the original English and the translation into their preferred language together. A monolingual experience is reasonably usable and accessible but would be substantially enhanced by the ability to easily toggle between preferred language and English.*
 - Ballot slot should be familiar (like the sidecar prototype) and enable voters to manage and review the ballot with ease (like the monolith prototype).*
 - Voters found the prototype's default settings fairly usable, in terms of screen angle, text size, and contrast. Letting them know that they can customize these things for their comfort and privacy will require better discoverability and clearer guidance.*
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